



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,531	12/13/2000	Siming Lin	5150-46400	9817
35690	7590	03/18/2005	EXAMINER	
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.			WU, JINGGE	
P.O. BOX 398			ART UNIT	
AUSTIN, TX 78767-0398			PAPER NUMBER	

2623

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/737,531

Applicant(s)

LIN ET AL.

Examiner

Jingge Wu

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 10,21,27-31,37 and 44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-9,11-20,22-25,32-36,38-43 and 45 is/are rejected.
- 7) ☐ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/22/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. Applicant's petition filed on April 22, 2004 has been granted and entered into the record. Applicant's declaration under 37 C.F.R. has been entered. Accordingly, the reference Vertan et al. is withdrawn and the rejection based on Vertan is expressly withdrawn. However, the figures that is not in the application No. 09375,453, now US patent 6757428 and corresponding descriptions of the figures should not be entitled to the priority of US 6757428, and only entitled to the filing date of current application, i.e., December 13, 2000. Therefore, the claims withdrawn from consideration are not entitled for priority date, which claimed characterizing and determining a similarity of colors between a template image and target image.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Art Unit: 2623

3. Claims 1-6, 8, 11-17, 19, 22-23, 25-26, 32-36, 38-43 and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6385337 to Klassen et al.

As to claim 1, Klassen discloses a computer-implemented method for characterizing colors of an image, comprising:

for each respective pixel of at least a subset (block) of pixels of the image assigns values to one or more color categories based on color information of the pixel (fig. 4, col. 6 line 67-col. 7 line 3);

wherein, the assigning comprises assigning values to a plurality of the color categories based on color information of the pixel (col. 8 lines 36-42); and

determining information (mean color of largest cluster or average color of the rest clusters) regarding the total values (fuzzy contribution) of pixels assigned to each of color categories, wherein said information characterizes colors of the image (col. 7 line 25-col. 8 line 57).

As to claims 2-3, Klassen further discloses assigning the percentage $((x+8)/17)$ of the pixel to each of the color categories and the sum of the percentages assigned to each of the color categories is 100 percent (inherent because of Fuzzy set theory)(col. 7 line 35-col. 8 line 26).

As to claim 4, Klassen further discloses each of color categories corresponding to a portion of a color space (It is inherent because each color of a pixel is a point of a color space and the subset of color pixels of a color bin of histogram is a corresponding portion of color space).

As to claims 5-6 and 8, Klassen further discloses assigning values comprising: assigning color based on color information (col. 6 line 67-col. 7 line 3);

Art Unit: 2623

determining a location of the pixel by examining color information (range information) within the color space (col. 6 line 67-col. 7 line 3 note that color value range is the locations in the color space); and

applying a function (fuzzy function) based on the location (ranges or bins of the color histogram) of the pixel to determine the values assigned to the color categories (col. 7 line 35-col. 8 line 46).

As to claim 11, Klassen further discloses creating a data structure (fuzzy histogram) having values representing total values of pixels assigned to each of the color categories (bins) (col. 7 lines 35-col. 8 line 46), determining information regarding total values (fuzzy distribution) of pixels assigned to each of the color categories comprises determining the values of the data structure (fuzzy histogram) (col. 7 line 35-col. 8 line 25).

As to claims 12-17, 19, 22-23, 25, 32-36, 38-43 and 45, the claims are corresponding method, system, and ,memory medium corresponding method claims to claims 1-6, 8, 11 respectively. The discussion are addressed with regard to claims 1-6, 8-9, 11.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2623

5. Claims 7, 9, 18, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen.

As to claims 7, 9, 18, 20, 24, Klassen further discloses a color space having LCH (col. 9 lines 37-38) for examining color information of the pixel and also a circular fuzzy membership function (col. 7 lines 53-56) but does not mention HSI color space and one of a triangle, trapezoidal, or step fuzzy membership function. However, the HSI color space can be obtained through transforming LCH color space and is equivalent to the LCH color space.

Moreover, Examiner takes Official Notice that this feature is notoriously well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the HSI color space and one of a triangle, trapezoidal, or step fuzzy membership function in the method of Klassen in order to directly measure and calculate the hue, saturation, and intensity information and their effects on neighboring pixels.

Allowable Subject Matter

Claims 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

6. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

